*by Doris Rapp and Don Glines*

# Allergies and Problem Students

School health leaders now have an additional challenge: helping curriculum directors, teachers, administrators, and even the nurses recognize that the inability of some children and teenagers to learn to their potential, or to act or behave in an accepted manner, may be simply a manifestation of unsuspected or undetected allergies or intolerances — specifically, environmental illness.

Educators who work daily with youth in most any capacity can visualize, from their own experiences with students, the following portraits:

- The child with dark eye circles, who by 9 a.m. cannot sit still, and who often assumes the role of classroom clown. Unknown to the teacher is the fact that the child had *colored cereal* for breakfast.
- The youth who has high intelligence test scores, but at times inexplicably fails certain examinations. Upon reflection, the teacher may recognize that the standardized tests printed on *chemically-treated* paper seem to be the ones that present the most challenge.
- A retarded child who suddenly develops red earlobes and cannot play simple games on *damp, wet days;* on dry days, learning is not a problem and the earlobes do not turn red.
- The student whose performance is excellent until the end of the year when the *grass pollen* peak is high; not only does the individual have hay fever, but this is the time the staff realizes that lower than expected test scores appear on end-of-the-year examinations.
- The teenage boy who becomes violent and vulgar shortly after some *chemistry laboratory* periods, or just after leaving the restroom recently cleaned with *disinfectants.* He may wiggle his legs wildly back and forth when he sits in his next class; this same lad, at other times, is a model student.
- The youngster who suddenly displays Jekyll and Hyde personality changes; she may spit, hit, bite, and kick, but may act this way only following lunch on Thursdays, when the cafeteria serves *pizza and punch;* she often has puffy bags under her eyes after consuming this meal.
- The little primary-age girl who seems to dislike being touched, a rather perplexing dilemma. At times she even crawls under her desk or hides in a dark corner. Her cheeks are often red, as if she used rouge; she sniffles, rubs her nose upward, and makes clucking throat sounds. She often tries to sneak *chocolates* during the day. Her brother, according to his teacher, is often absent with an asthma attack.

These examples are typical of youth who have unusual, unsuspected, and undiagnosed allergies, hypersensitivities, and intolerances; they often have allergic parents and siblings. Many of them seem to have asthma symptoms; allergic coughing following laughing or exercise; stuffy runny noses; itchy watery red eyes; or itchy dry irritated skin, the latter, unknowingly, created by eating too much *chicken* in a short period of time.

Such students are thought to be unmotivated or lazy, for they appear to refuse to learn the prescribed course of study. Occasionally, they are recommended for special education; often their problems are blamed on being placed with a permissive or perhaps inexperienced young teacher.

Children who have intolerances, hypersensitivities, or hidden allergies may suddenly not act or behave appropriately. Their appearance and physical characteristics can change.

Such clues often indicate forms of allergy, especially if the child is from a family where other members of the household have similar conditions. Teachers, especially, are in an enviable position, for they can often determine the specific cause of intermittant or chronic changes that interfere with behavior and learning. School health educators and nurses need to help these classroom leaders, administrators, and resource teachers become aware of the many possible allergic causes and symptoms of atypical student learning and behavior patterns.

For a few youths who appear not to be "normal" upon arrival at school on certain days, the cause might be from such simple and routinely accepted practices as the morning toothbrushing or mouthwashing; hairspraying from an aerosol can; something consumed for breakfast; tobacco fumes from the cigarette mother or father was smoking before leaving for work; the gas or diesel fumes from the school bus; or the perfume or body odors emitting from the other passengers.

If a child is routinely worse in some manner

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after a mid-morning snack or lunch, the cause usually can be traced to what is eaten, and not surprising, from a favorite food. Teachers often recognize the "impossible child" following Halloween, Christmas, Valentine, and Easter parties — if cakes, cookies, ice cream, punch, or other similar sugar, wheat, and color-laden goodies are on the menu.

Youth who are worse after physical education classes are often victims of the chlorine in the pool, the molds in the shower area, or the dust, dirt, or grass on the outdoor play areas. Poor performance after art, printing, industrial arts, biology, and chemistry periods creates suspicion of a reaction to the chemical odors. If a student cannot think clearly after an outside recess, the pollen or smog in the air, the spraying on agricultural fields during the warm months, or the diesel and factory fumes at any time in the cities could be the cause of the condition.

Some students act or behave differently whenever it is damp outside. Moldy, wet areas in the school can cause many diverse symptoms, not just asthma or hay fever. Infrequently used rooms, such as music and auditorium facilities, allow dust to collect and therefore can create serious difficulties for the highly dust-sensitive person.

It is not surprising for a child to be worse after spending time in the cafeteria, in a carpeted room, in the chemically-deodorized lavatory, in a freshly painted room, or in the newly remodeled wing, especially if such formaldehyde-laden items as particleboard shelving and drawers, and other similar toxic materials have been used extensively.

Though very environmentally ill students are difficult to diagnose and treat, the cause and effect relationship is often easy to identify for many allergy affected youth.

The health education curriculum can help students and their parents recognize these causes, for there are many common exposures that create the majority of atypical allergy behaviors.

The embarrassment of "wet pants" can be due to milk or fruit juices, while abdominal complaints can commonly, but not always, be caused by milk, wheat, eggs, and corn. Canker sores are often raised by nuts, the oils used to fry chips, grains, salty foods, tomatoes, or orange juice. Headaches create suspicions of reactions to such familiar foods as chocolate, milk, cheese, eggs, and corn. John Mansfield, M.D., a leading headache researcher in England, states in his book, *The Migraine Revolution*, that 80-95 percent of migraine headaches — a problem which plagues a number of teachers — are caused by foods, especially wheat, corn, milk, sugar, and oranges. Silver, amalgam dental fillings, which are 30-50 percent mercury, can be a major cause of allergy reactions and illnesses.

Health educators can play a role, in cooperation with the families and their physicians, in confirming suspicions that the hidden allergy syndrome may be the leading cause of some undiagnosed atypical behavior and learning patterns. Curriculum plans for elementary school classroom teachers, and for health, home economics, and life science classes at the secondary level, can include study units on food allergies. As one activity, two parties can be planned. For part of the learning sequence, students can be asked to write their names and to draw art sketches to the best of their ability just before eating the foods served at the social; they are asked to repeat the name writing and drawing assignments 45 minutes after consuming the items served.

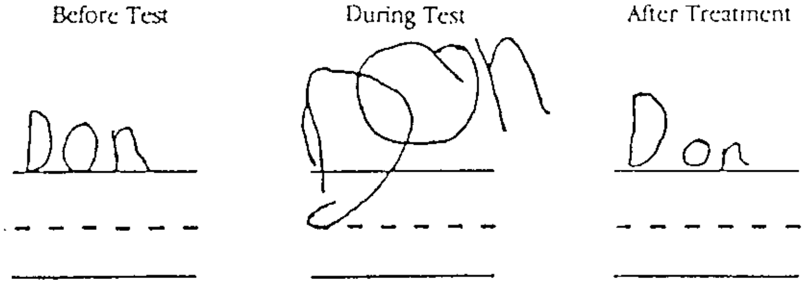
At one gathering, the students can serve typical party foods: cookies, cakes, ice cream, nuts, snacks, sandwiches, milk. At the other party, that group can serve creatively designed vegetables and salads without oils — and no milk, wheat, corn, eggs, or sugar in any form. It is sometimes surprisingly easy to identify which children — usually those from party number one — begin to feel ill, are unable to write their names or sketch well, create disturbances, or show silly, overactive, or aggressive exuberance. Parents are fascinated by seeing the changes that occur in the ability of some children to draw or write. Such an approach eliminates excitement as a variable and provides several quick, easily confirmed responses in a safe manner. Figures A and B illustrate the actual before and after party effects of two case studies:

Depending upon the degree of environmental illness (allergic responses), and the age level, sometimes the answer may be unbelievably simple. Removing a classroom pet, or the teacher ceasing to wear perfume, may solve the condition for a given student. A student can walk down a different hallway to class, thereby avoiding cafeteria or chemistry room odors, or can perhaps sit away from the heating unit or the air conditioning duct, and almost instantly feel better.

Health educators should help parents, teachers, and students become aware of any observations of reactions that might be altering the capacity to learn or behave appropriately. Parents can confirm the suspicions of teachers by watching how their children respond after certain chemical (perfume) or inhalant (mowing the lawn) exposures, or after eating suspect or favorite foods. A lunch packed at home may resolve the cafeteria menu problems.

Ironically, foods the student likes best are

**Figure A** *Reaction to Milk*

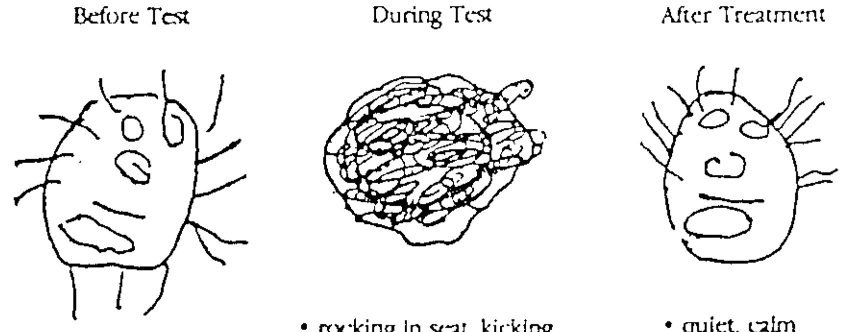


Before Test — • somber

During Test — • angry, screaming, irritable, whining, uncooperative

After Treatment — • happier

**Figure B** *Reaction to Egg*



Before Test — • quiet, calm

During Test — • rocking in seat, kicking on floor, ear lobes red

After Treatment — • quiet, calm more in control often the worse enemy.

There are over 30 good publications illustrating how environmental illness (allergies) can affect youth, and what parents can do to prevent or minimize a potential ongoing major problem. These references describe simple one week diets that often can easily, quickly, safely, and inexpensively confirm some of the suspected food sensitivities.

Schools, sparked by the leadership of health educators, can do much more than they have by helping to identify, and then cooperating with the parents of allergy-prone students.

The teachers in the self-contained classrooms, or those in charge of the secondary health, home economics, and science classes, in cooperation with the health educators and school nurses, can do much to teach their students how to identify their own allergies. They can talk about allergy symptoms. They can help the students recognize their own reaction symptoms. They can help students learn which foods, chemicals, and inhalants usually cause the majority of the problems and how to avoid them.

Schools cannot guarantee an environmentally pure bubble for every affected student. However, they, with the leadership provided by school health officials, can take steps to reduce the potential for problems by considering the following 12 actions:

- Inform students and staff members who use perfumes, heavily scented cosmetics, deodorants, sprays, and tobacco how they affect others and urge that they be used sparingly in the building. Cosmetics contain phenols, which, like tobacco smoke, are toxic to chemically allergic persons.
- Modify the health, home economics, and biological science curriculum to reflect new medical findings related to immune system dysfunctions, environmental illness, daily exposure to common chemicals, and allergies.
- Ensure that the school lunch program offers options to allow students to avoid wheat, corn, milk, sugar, cheese, colorings, and additives. Cooperate with families who need to have home-prepared lunches refrigerated.
- Remove snack and soft drink machines of heavily processed foods containing sugar, coloring, additives, wheat, corn, and other products offensive to the allergic patient. Provide a wide variety of non-processed snacks.
- Provide separate restrooms for allergic students — free from cigarette smoke, chemical deodorants, scented soaps, strong cleaning solvents, and students who use hair sprays, perfumes, nail polish, and other related products.
- Include in the library/media center a small, well-ventilated room, (preferably with windows and wooden tables and chairs) *without* carpeting (use hardwood or nonporous ceramic floors), particleboard shelves, or paneling. Such a room is cost effective; any student can use it, including those with "hay fever" from dust, molds, and hydrocarbons.
- Permit students who have allergies to sit away from students who insist on wearing scented products and away from forced air heating and cooling vents, chalkboards, art storage areas, book depositories, and indoor plants and animals.
- Use toxic cleaning solvents, waxes, and polishes (especially those with scent-phenols) sparingly. The stronger the smell, the more the ingredient should be avoided.
- Reduce the use of magic markers and ink pens; eliminate the most toxic paints and varnishes from art and shop classes; and ventilate freshly painted rooms before using them. When painting, generally use only odorless acrylic latex-based paints.
- Study the research on indoor air pollution and follow the recommendations related to indoor environments. The implications for the long-term health of students are so significant that they should not be ignored, or put aside until another budget when money might be available.
- Provide distilled water in glass, not plastic, containers; allergic students usually should not drink chlorinated tap water, nor should they use chlorinated swimming pools any more than essential (to learn self-preservation water skills), if chlorine can be tolerated for short periods of time.
- Provide information to parents and students regarding their home and school environments. It is difficult to change the habits of teenagers who are caught in the social routines of the cutlture — unless they realize the urgency. Changing their patterns in preschool and elementary years is easier and provides an earlier start to improved health and the reduction of allergies throughout life.

Health education personnel cannot play the role of a doctor, but they can alert teachers, administrators, and parents to possible symptoms, suggest appointments with environmentally-oriented physicians, and do their best to prevent damaging exposure to the incitants while at the school site. Students with problems should have the conventional medical evaluations to ensure that the problem is not a more serious condition.

School staff are in a unique position to lead such a consideration, for they can observe the students for prolonged periods of time and then compare them with their age level counterparts. Some children who cannot conform, who do seem unable to learn to their capacity, or who are a "pain in the class," may easily be helped, if environmental illness is primarily responsible.

Health educators can have the immense satisfaction of recognizing a basic health condition that others have missed, and thereby positively alter the couse of life for many of the youths. Not only can individuals feel better and do better themselves, but with improved health, they can assume more social responsibility toward helping to create for all of humankind, a more preferable 21st Century.

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